

Exhibit 11

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

ORACLE AMERICA, INC.,)	
)	
Plaintiff,)	
)	
v.)	Civ. A. No. 10-03561 WHA
)	
GOOGLE INC.,)	(<i>Jury</i>)
)	
Defendant.)	

REPLY EXPERT REPORT OF PROFESSOR DOUGLAS C. SCHMIDT, Ph.D.

February 29, 2016

26. I conducted this same analysis on the Android Gingerbread code base. A summary of the resulting line counts and attributions in Android Gingerbread is listed below in Table 2.

Table 2: Line Count and Attribution for Android API Level 9 ("Gingerbread")

	Files	Lines	SLOC	Lines / total lines	SLOC / total SLOC	Blanks Lines & Comments / total lines	SLOC / total lines
Google & Subsidiary Copyright	17,542	3,872,045	2,447,294	26.5%	26.5%	9.8%	16.8%
3rd Party Copyright	27,354	8,705,989	5,492,219	59.7%	59.5%	22.0%	37.7%
Unspecified Copyright	8,941	2,008,766	1,298,790	13.8%	14.1%	4.9%	8.9%
Total in C, C++, Java, Header files	53,837	14,586,800	9,238,303	100%	100%	36.7%	63.3%

27. Examining the results from Android Gingerbread, the same patterns become clear as with the Android Donut results. First, the majority of Android's codebase is attributable to third parties, and includes the copyrighted Oracle API code in question. Moreover, indeterminate authorship, blank lines, and comments account for more of the Android code base than original Google content. Ultimately, Google's code content in Android Gingerbread only accounts for approximately 27% of the total lines of code, and ~17% of Android Gingerbread consists of Google original source code after excluding blank lines and comments. A visualization of attributable code copyright is provided in Figure 2 below.

garbage collection, bounds checking, static type checking, published specifications for the platform (including the copied 37 Java API packages) intended to ensure compatibility, and large-scale adoption by programmers. The experiences of Apple and Google demonstrate how time consuming it is for one company to develop and promote a platform using a new language that achieves widespread adoption by millions of developers. Viewing these events retrospectively highlights Sun's achievement in creating a complex, dynamic programming platform with enduring utility and expressive potential.

VII. THE ANDROID PLATFORM IS INCOMPATIBLE BASED ON THE JAVA COMPATIBILITY KIT FOR JAVA SE 1.4 AND JAVA SE 5.0

52. I understand that the District Court recently ruled that the question of infringement will, for the time being, be limited to Google's copying of code up through Java SE 5.0.³⁰ Although I understand that the Court clarified that other versions of Java SE may still be relevant for other purposes, out of an abundance of caution, I have reviewed updated tests in response to Dr. Astrachan's critique of Android compatibility.

53. When the Signature Test was rerun using earlier versions of the Java Compatibility Kit, the results were the same. As detailed in the section below, including Tables 3 and 4, as well as Appendix E, Android fails the Signature Test for these earlier versions.

54. I understand from the declaration of Dr. Mark Reinhold, Chief Architecture of the Java Platform Group at Oracle, that Android API Level 9 (Gingerbread) and Android API Level 21 (Lollipop) each failed to pass the Java Compatibility Test for Java SE 1.4 and Java SE 5.0.

³⁰ I understand that it is undisputed that Google copied the 37 Java API Packages for all versions of Android up to and including Android Marshmallow (API Level 23). Moreover, I note that Dr. Astrachan does not challenge Mr. Zeidman's opinions that Android Auto, Android TV, and Android Wear include the copied 37 Java API packages. To be sure, the websites cited in Mr. Zeidman's report (¶29) (<http://developer.android.com/training/auto/start/index.html>; <http://developer.android.com/training/tv/start/start.html>; <http://developer.android.com/training/wearables/apps/creating.html>) make clear that the SDK for versions of Android that include the 37 Java API Packages—which Google distributes—are necessary to write applications for those products. Thus, when an app developer wishes to write an application for Android Auto, TV, or Wear, the developer must download (to the extent they do not already have it) and use the SDK. Moreover, the practical result of this requirement means that those versions of Android runtime (which again, undisputedly include the copied 37 Java API Packages) must be included in Google's distribution of Android Auto, Android TV, and Android Wear.